

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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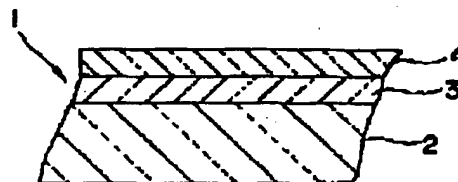
APPLICATION DATE : 05-02-92  
APPLICATION NUMBER : 04019266

APPLICANT : NIPPON SHEET GLASS CO LTD;

INVENTOR : KAWAGUCHI ATSUSHI;

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TITLE : RADIANT HEAT-SHIELD GLASS



**ABSTRACT :** **PURPOSE:** To improve the abrasion resistance and chemical stability of the radiant heat-shielding glass by further coating a protecting film comprising silicon, zirconium, carbon, etc., in a prescribed thickness on a radiant heat-shielding coating film coated on a transparent glass plate.

**CONSTITUTION:** The radiant heat-shielding glass 1 is formed by further coating a 5-10nm thick protecting film 4 on a radiant heat-shielding coating film 3 coated on a transparent glass plate 2. The coating film 3 comprises the nitride or oxynitride of elements selected from titanium, zirconium, hafnium and chromium. The protecting film 4 is formed from silicon, zirconium, carbon, oxygen, and further nitrogen. The protecting film 4 is represented by a chemical formula:  $\text{SiZr}_j\text{C}_k\text{N}_m\text{O}_n$  (j is 0.2-0.6; k is 0-0.8; m is 0-1; n is  $\geq 1.2$ ).

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